

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-31 (Cancelled)

32. (Currently Amended) A dye-sensitized solar cell module comprising:
first photoelectric conversion elements each comprising a transparent conductive layer, a porous photoelectric conversion layer adsorbing a dye, an electrolytic layer, a catalyst layer, and a conductive layer laminated in this order on a transparent substrate;
second photoelectric conversion elements each comprising a transparent conductive layer, a catalyst layer, an electrolytic layer, a porous photoelectric conversion layer adsorbing a dye, and a conductive layer laminated in this order on a transparent substrate; and
a supporting substrate formed on the respective conductive layers of the first and second photoelectric conversion elements,

wherein one or more first photoelectric conversion elements and one or more second photoelectric conversion elements are alternately arranged in parallel between the transparent substrate and the supporting substrate, and the neighboring first photoelectric conversion elements and second photoelectric conversion elements are electrically connected in series, and

~~wherein the first photoelectric conversion elements and the second photoelectric conversion elements are different in at least one among the composition of the materials for the respective layers composing the photoelectric conversion elements; the particle diameters on the case that the materials of the respective layers are granular; the thickness and width of the respective layers; the form of the respective layers; and the dye.~~

33. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein a short circuit current of the second photoelectric conversion elements in the case where a light receiving face thereof is set in the porous photoelectric conversion layer side opposite the catalyst layer side is greater than a short circuit current of the first photoelectric conversion elements in the case where a light receiving face thereof is set in the porous photoelectric conversion layer side opposite the catalyst layer side.

34. (Currently Amended) The dye-sensitized solar cell module according to claim 32, wherein the first photoelectric conversion elements and the second photoelectric conversion elements are different in at least one among the composition of the electrolytic layers; the thickness of the porous photoelectric conversion layers; the width of the porous photoelectric conversion layers; the average particle diameter of the semiconductor particles composing the porous photoelectric conversion layers; and the form of the catalyst layers.

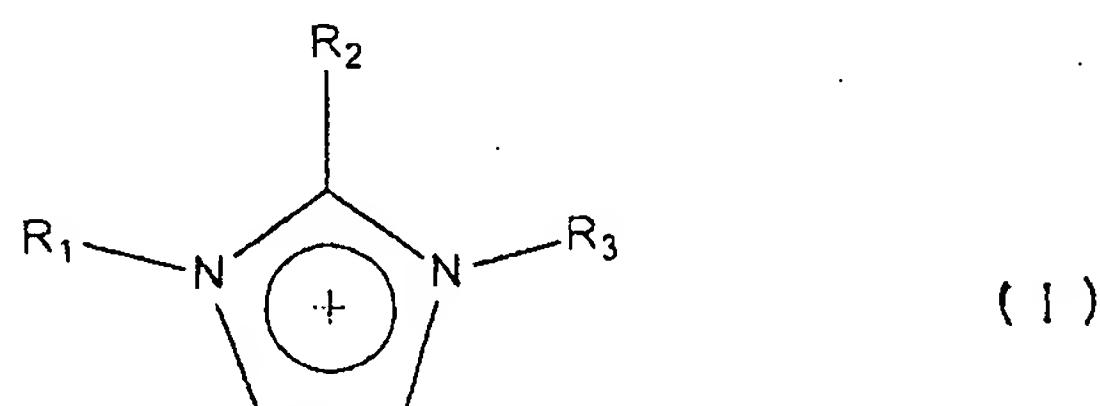
35. (Previously Presented) The dye-sensitized solar cell module according to claim 34, wherein the first photoelectric conversion elements and the second photoelectric conversion elements contain iodine in the respective electrolytic layers and the iodine concentration in the electrolytic layers of the second photoelectric conversion elements is lower than the iodine concentration in the electrolytic layers of the first photoelectric conversion elements.

36. (Previously Presented) The dye-sensitized solar cell module according to claim 35, wherein the ratio M1/M2 of the iodine concentration M1 in the electrolytic layers of the first photoelectric conversion elements and the iodine concentration M2 in the electrolytic layers of the second photoelectric conversion elements is higher than 1 and not higher than 5.

37. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the first photoelectric conversion elements and the second photoelectric conversion elements respectively contain imidazoles or imidazolium salts in their electrolytic layers, the imidazole or imidazolium salt contained in each of the electrolytic layers of the first photoelectric conversion elements being different from that contained in each of the electrolytic layers of the second photoelectric conversion elements.

38. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the imidazoles or imidazolium salts contained in the respective electrolytic layers of the first photoelectric conversion elements and the second photoelectric conversion elements differ in concentration.

39. (Previously Presented) The dye-sensitized solar cell module according to claim 37, wherein the imidazolium salts are salts of compounds defined by the following formula (I):



wherein R₁ and R₂ independently denote a hydrogen atom or methyl; R₃ denotes methyl, ethyl, propyl, butyl, or hexyl.

40. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein either the first photoelectric conversion elements or the second photoelectric conversion elements contain lithium iodide in the electrolytic layer thereof.

41. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the thicknesses of the porous photoelectric conversion layers of the first photoelectric conversion elements and the second photoelectric conversion elements differ.

42. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the thicknesses of the porous photoelectric conversion layers of the first photoelectric conversion elements are thinner than the thicknesses of the porous photoelectric conversion layers of the second photoelectric conversion elements.

43. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein when the short circuit current density of the first photoelectric conversion elements is defined as J_d and the short circuit current density of the second photoelectric conversion elements is defined as J_c , $(J_c/J_d) > 0.7$ is satisfied.

44. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the light receiving surface areas of the respective porous photoelectric conversion layers of the first photoelectric conversion elements and the second photoelectric conversion elements differ.

45. (Previously Presented) The dye-sensitized solar cell module according to claim 44, wherein the light receiving surface areas of the respective porous photoelectric conversion layers of the second photoelectric conversion elements are larger than the light receiving surface areas of the respective porous photoelectric conversion layers of the first photoelectric conversion elements.

46. (Previously Presented) The dye-sensitized solar cell module according to claim 44, wherein the widths of the respective porous photoelectric conversion layers of the first photoelectric conversion elements and the second photoelectric conversion elements differ in the series connection direction of the solar cells.

47. (Previously Presented) The dye-sensitized solar cell module according to claim 44, wherein the light receiving surface areas of the respective porous photoelectric conversion layers of a plurality of the first photoelectric conversion elements are the same and the light receiving surface areas of the respective porous photoelectric conversion layers of a plurality of the second photoelectric conversion elements are the same.

48. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein a first dye is adsorbed in the respective porous photoelectric conversion layers of a plurality of the first photoelectric conversion elements and a second dye different from the first dye is adsorbed in the respective porous photoelectric conversion layers of a plurality of the second photoelectric conversion elements.

49. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein an open circuit voltage of the first photoelectric conversion elements and an open circuit voltage of the second photoelectric conversion elements differ.

50. (Previously Presented) The dye-sensitized solar cell module according to claim 49, wherein open circuit voltage values of the first photoelectric conversion elements are higher than open circuit voltage values of the second photoelectric conversion elements.

51. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the average particle diameter of the semiconductor particles of the porous semiconductor layers of the first photoelectric conversion elements is smaller than the average particle diameter of the semiconductor particles of the porous semiconductor layers of the second photoelectric conversion elements.

52. (Previously Presented) The dye-sensitized solar cell module according to claim 51, wherein the porous semiconductor layer of at least each of the second photoelectric conversion elements is composed of a plurality of layers and the average particle diameter of the semiconductor particles in the porous semiconductor layer closest to the supporting substrate is larger than the average particle diameter of the semiconductor particles in the porous semiconductor layer farthest from the supporting substrate.

53. (Previously Presented) The dye-sensitized solar cell module according to claim 52, wherein the average particle diameter of the semiconductor particles of the porous semiconductor layers of the first photoelectric conversion elements is 30 nm or smaller and the semiconductor particles with a particle diameter of 100 nm or larger are contained in the porous semiconductor layers of the second photoelectric conversion elements.

54. (Previously Presented) The dye-sensitized solar cell module according to claim 53, wherein the porous semiconductor layer of each of the second photoelectric conversion elements is composed of a plurality of layers and the semiconductor particles with a particle diameter of 100 nm or larger are contained in the porous semiconductor layer closest to the supporting substrate and the semiconductor particles with an average particle diameter of 30 nm or smaller are contained in the porous semiconductor layer farthest from the supporting substrate.

55. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the light transmittance of the catalyst layers of the second photoelectric conversion elements is lower than the light transmittance of the catalyst layers of the first photoelectric conversion elements since the shapes of the catalyst layers of the first photoelectric conversion elements and the catalyst layers of the second photoelectric conversion elements differ.

56. (Previously Presented) The dye-sensitized solar cell module according to claim 55, wherein the catalyst layers of the second photoelectric conversion elements have aperture parts.

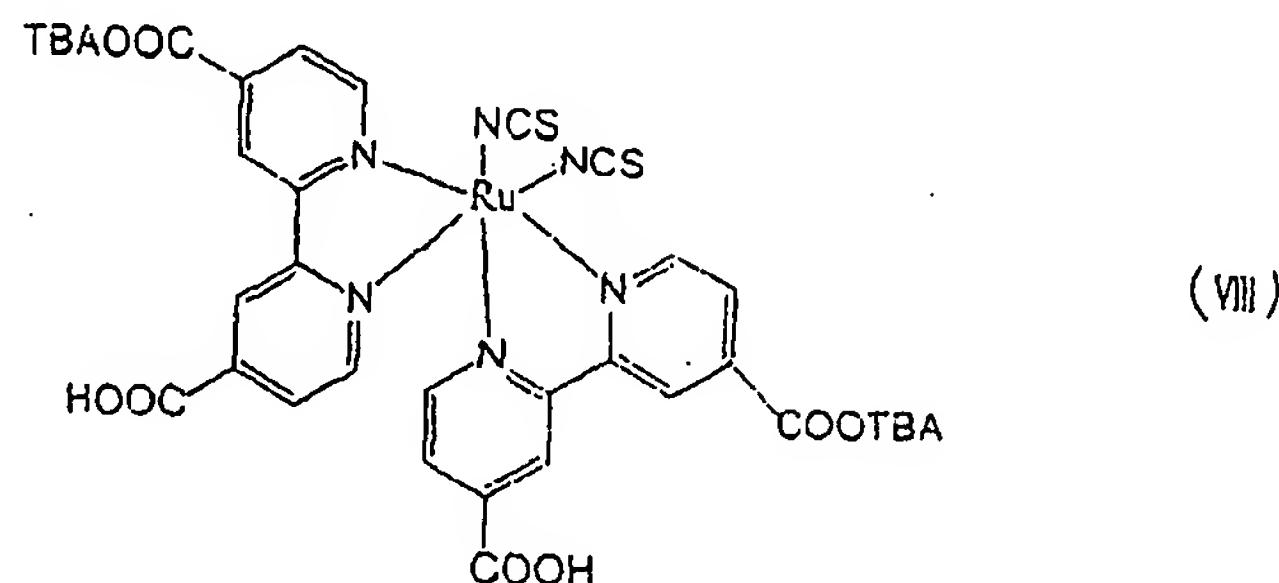
57. (Previously Presented) The dye-sensitized solar cell module according to claim 56, wherein the catalyst layers of the second photoelectric conversion elements have a lattice-like shape.

58. (Previously Presented) The dye-sensitized solar cell module according to claim 56, wherein the catalyst layers of the second photoelectric conversion elements have a stripe shape.

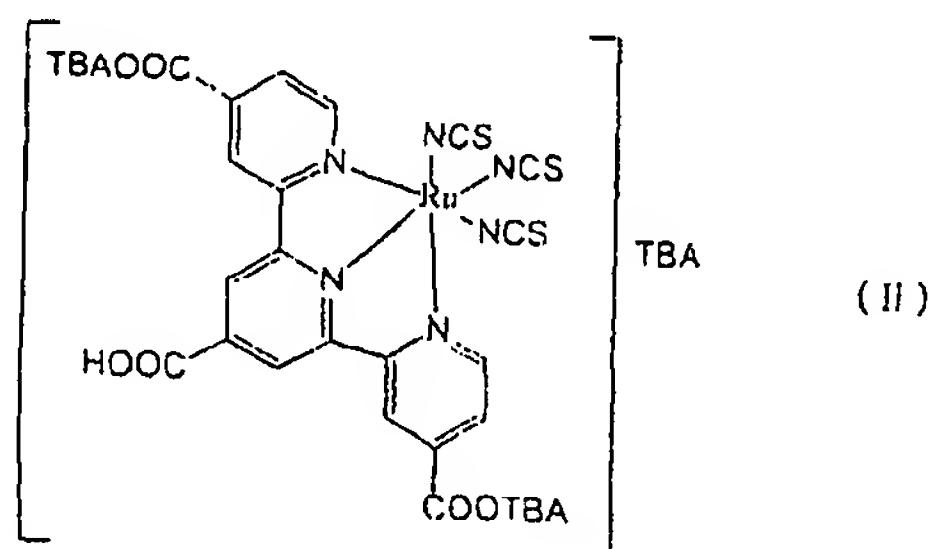
59. (Previously Presented) The dye-sensitized solar cell module according to claim 56, wherein the catalyst layers of the second photoelectric conversion elements have a dotted shape.

60. (Previously Presented) The dye-sensitized solar cell module according to claim 32, wherein the catalyst layers contain Pt.

61. (Previously Presented) The dye sensitized solar cell module according to claim 48, wherein a ruthenium dye defined by the formula (VIII):



is adsorbed on the respective porous photoelectric conversion layers of a plurality of the first photoelectric conversion elements and a black dye defined by the formula (II):



is adsorbed on the respective porous photoelectric conversion layers of a plurality of the second photoelectric conversion elements.